Putting Patients First: Social Marketing Strategies for Treating HIV in Developing Nations
Zoë Chance and Rohit Deshpandé

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Putting Patients First

Social Marketing Strategies for Treating HIV in Developing Nations

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It is more than mere coincidence that the highest rates of HIV occur in the world’s poorest countries. Of the over forty million people currently living with HIV, 95 percent are in the developing world. The first part of this article explores the economics of HIV and treatment from a social marketing perspective. The second part of the article uses three specific case histories of successful social marketing organizations in Africa, Asia, and South America to inductively generate a consumer (patient)-centric marketing model. The focal organizations are unique in that they all identify patient needs first, then work backwards to develop economically viable solutions. Their solutions are not without flaws, and the future of these programs remains uncertain, but the authors hope that illuminating specific cases within the consumer-centric marketing paradigm will shed light on ways in which other organizations may be able to serve the poor profitably.

**Keywords:** social marketing; HIV; AIDS; pharmaceuticals; poverty

Nearly forty years ago, Kotler and Zaltman defined “social marketing” as the design and execution of programs to influence the dissemination of social ideas through marketing processes (1971); Lazer and Kelley (1973) further specified that social marketing aims to enhance social ends as well as improve social consequences of marketing policies. As Hastings (2003) has more recently noted, this fairly intuitive notion of applying basic marketing tools and practices to social problems has still not fully taken hold. For example, the notion of being program- or product-driven rather than consumer-centric is still prevalent, particularly in the areas of poverty and health care, where applying what Kotler, Roberto and Leisner (2006) call a “macro/micro marketing perspective” would be greatly beneficial. The authors use the term “social marketing” to refer to the creative use of standard marketing tools in the service of public welfare, and they find that the key to economically successful social marketing outcomes in the domain of HIV treatment is consumer or patient centrivity. To be consumer-centric, a marketing program must serve individual as well as collective welfare (Dholakia 1984), with end users of the product or program understanding its benefit to themselves and not just to the greater good. Although the authors’ discussion is limited to HIV-related health outcomes, good health is a key determinant of quality of life (Sirgy et al. 1991; Sirgy, Hansen and Littlefield 1994; Rahtz, Sirgy and Lee 2004). In a bottom-up spillover model (Diener 1984; Sirgy 2002) in which satisfaction in different life domains aggregates to overall life satisfaction, increasing access to health care and medicines is an important step toward improving consumer well-being.

People living in poverty have little access to good health care and lack of health care contributes directly to poverty, particularly for those suffering from HIV/AIDS,¹ the most lethal epidemic in recorded history. The first case of HIV was reported in 1981 (Sengupta and Kumari 1990), and twenty-five years later, no cure had been discovered, although advances in drug treatment had made the disease manageable for those with access to medicine. The United Nations’ “3 by 5” directive set an ambitious global policy goal to increase access to HIV medicines in the developing world to three million people by 2005 (UN AIDS 2005), and hence the authors set their case discussions in that year.²

By 2005, sixty-five million people had been infected with HIV, and most of the forty million still living would die without treatment. Although 95 percent of those infected lived in the developing world, 90 percent of
those receiving treatment lived in the richest nations. The trend, however, offered hope, with antiretroviral (ARV) treatment in developing nations doubling between 2004 and 2005. In this article, the authors discuss the economics of HIV, then present a consumer-centric social marketing framework inductively based on case studies of three organizations that enjoyed extraordinary economic success as they expanded access to HIV treatment: Aspen Pharmacare in South Africa, Cipla in India, and the National AIDS Program in Brazil. Whereas market forces may frequently exclude the marginalized and the poor from public health benefits (Varman and Vikas 2007), the authors’ focal institutions demonstrate that under the right conditions, market forces can be employed in the service of the poor, helping them lead healthier, happier lives.

HIV and Poverty

Every day in 2005, more than 8,000 people died of HIV-related illnesses and more than 13,000 were newly infected. The disease was particularly devastating to families. Due to its intimate mode of transmission, an infected husband or wife was likely to pass the virus to his or her spouse, putting their children at risk of losing both parents. HIV had orphaned ten million children by 2005, and it had been estimated that by 2010, forty-four million people would have lost one or both parents to the disease (Biehl 2004). In much of sub-Saharan Africa, the population was shrinking and life expectancy had been reduced by a decade or more.

HIV and poverty exacerbated each other in a vicious cycle. The poorer a person was, the more likely he was to contract HIV (Berwick 2002); and as he ailed, he grew poorer still. HIV led to poverty on microeconomic and macroeconomic scales, impoverishing individuals, firms, and nations (see figure 1).

At the level of the individual family, HIV-related illnesses led to loss of wages which limited food consumption, which caused health deterioration, which further compromised the immune system, which opened the window for more opportunistic diseases requiring additional patient care, which led parents to withdraw daughters from school, leaving girls both orphaned and uneducated. These girls were less likely to understand HIV prevention, had lower earning capacity, and were more likely to trade sexual favors for food or gifts. This combination of factors put girls at high risk for HIV themselves.

On a firm level, worker absenteeism due to illness, death, funeral attendance, and caring for ill family members caused productivity to ebb. Simultaneously, increased medical care and funeral expenses led to rising employee benefit costs that raised firm cost structure and depleted profits. In high-prevalence areas, the consumer market base had shrunk dramatically due to mortality and income reduction resulting from illness and caretaking expenses. As firms’ consumer base diminished, sales declined, and investors, wary of increased risk, reduced their investment. Thus, the cost of capital increased, along with firms’ fixed-to-variable cost ratio, putting entire industries at risk.

The macroeconomic impact of HIV was equally dire. Disease prevalence could double within high-risk groups in six months and in the general population in three to five years, while socioeconomic improvements took decades (Potts and Walsh 2003). As health care expenses rose, governments reduced investment in infrastructure and development, which constricted the economy, which reduced tax revenues, contributing to ever-increasing national debt. As development stagnated, the poverty rate rose, which facilitated the spread of the disease, which expanded unemployment, weakening citizens’ ability to pay for health care. Government health care expenditures increased—at a rate higher than before—and the cycle continued.

In the United States, the annual cost of HIV treatment averaged more than US$20,000 per patient (Schackman...
et al. 2006), but per capita government health care expenditures in developing nations averaged only one thousandth of this amount (Partners AIDS Research Center 2005). Furthermore, per capita treatment and prevention costs were directly correlated with prevalence rates, with infrastructure breakdowns causing expenses to skyrocket in countries with high rates of infection (Bonnel 2000). It had been estimated that in a typical sub-Saharan African country with a 15 percent prevalence rate, loss of potential gross domestic product (GDP) due to HIV could be as severe as 4 percent per year (Dixon, McDonald and Roberts 2001), depleting health care funding along with other government reserves. For any HIV treatment strategy to be viable, therefore, it had to be offered to patients at an affordable price, yet also had to generate enough income or savings that the provider could treat a large patient base. ARV drugs could be manufactured inexpensively; however, patent laws proved a major hurdle impeding their distribution.

International Patent Laws

Each country’s patent laws were unique, and firms applied for separate patents in each country. The World Trade Organization (WTO), with a membership of 149 countries, oversaw international patent issues. WTO member nations abided by certain minimum patent standards similar to those of the United States and Europe. One hundred countries were in compliance with these rules already, and 49 nations classified as “least developed countries” (LDCs) had been granted a grace period until 2016. Thirty-five of these LDCs were in Africa, where the impact of HIV had been greatest. In theory, these LDCs should have been able to treat their citizens with low-cost generic versions of patented drugs, but there were roadblocks to doing this in practice. Furthermore, some of the hardest hit nations, including South Africa, lacked LDC protection.

Generally, patent laws protected the holder of the patent, and in the case of the pharmaceutical industry, they gave the patent holder a twenty-year monopoly. Although the effective coverage period was only seven to ten years due to a long development cycle, firms often extended patents on successful drugs by patenting similar formulations or new indications in a process known as “evergreening.” For example, zidovudine (AZT), the first and most popular HIV drug, was invented in 1964 as a potential cancer treatment and officially went off-patent in 2005, but it continued to maintain patent protection in a cocktail formulation with lamivudine until 2017—fifty-three years after its invention (Hamied 2005a).

A generic drug was the biologically equivalent version of a patented medication. It could be produced or sold in any country where the regulatory body had approved it and (1) the drug was not patented, (2) the patent had expired, (3) national laws permitted an exception, or (4) the country had declared a national emergency in accordance with WTO regulations. In a national emergency, a country could lawfully award a compulsory license to a generic manufacturer, paying a 2 to 4 percent royalty to the patent holder; however, in 2005, no country had yet done so.

This discussion focuses on distributors of generic drugs and their dynamic relationship with patent holders, a delicate balance between the protection and the over-protection of property rights (McMillan 2002).

The Consumer-Centric Marketing Paradigm

The authors’ marketing framework is rooted in a stakeholder model such as that proposed by Kennedy, Harris and Lord (2004), in which drug manufacturers and governments work in tandem to meet the needs of potential consumers, regardless of their ability to pay. Calfee and Bate (2004) and others have criticized this ideal as utopian and unrealistic, but the answer to their assumption that low prices require erosion of profits is that serving bottom-of-the-pyramid consumers not only could be a lucrative component of a for-profit business model, for some firms it already is.

Traditional pharmaceutical marketing strategies, built around premium prices, monopoly profits, and a high cost structure, had led to profitability in well-established markets but by 2005, they had proven inadequate for developing economies. Poor, ailing consumers had little individual ability to pay and were hard to reach through traditional promotions. In aggregate, however, they represented a tremendous potential market. Seventy percent of people in the developing world lived in just nine countries (Brazil, China, India, Indonesia, Mexico, Russia, South Africa, Thailand, and Turkey), with combined purchasing power greater than that of the United States (Prahalad 2005). And funding was available for the purchase of HIV drugs through charitable organizations like the United States’ $15 billion President’s Emergency Fund for AIDS Relief (PEPFAR). Although the annual per-patient price of ARVs ran as high as US$25,000 in the United States, it was possible to earn healthy profits even charging a mere one-hundredth of this amount. As
shown in figure 2, Indian drug company Cipla turned a higher profit on its generic drugs than most multinational firms did on their patented ones.

Table 1 highlights some differences between consumer-centric and traditional marketing, illustrated using observed generic and branded pharmaceutical company practices. These contrasts can be observed in more detail in each of the three cases.

**Key Stakeholders**

Because drug sales depend on prescriptions, traditional pharmaceutical firms focus their marketing efforts on direct sales calls to physicians, with marketing and sales expenses running twice as high as research and development (R&D) costs (see figure 2). Drug pricing is determined by insurers rather than patient willingness to pay. This model is too costly to implement in developing nations where most people lack health insurance and have low incomes.

In the consumer-centric drug company, defining the target market as the patient rather than the physician opens new markets where none existed—among people who cannot afford patented drugs—and forces firms toward innovation in all practices. By listening to the voice of the consumer in all business processes and working with patients as activists to identify consumer-centric solutions such as promoting prevention and adherence through consumers’ social networks, these firms benefit from low marketing expenses (see figure 2). Partnerships with governments and nongovernmental organizations (NGOs) further improve efficiency and

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**Table 1**

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<th>Traditional Versus Consumer-Centric Marketing in the Pharmaceutical Industry</th>
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<td><strong>Traditional Marketing Paradigm</strong></td>
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**Note.** NGO = nongovernmental organization.
grant access to additional revenue streams while assisting in the creation of health care infrastructure and programs.

**Sources of Innovation**

Traditional drug companies make and sell premium-priced medicine. They are technology-pushed rather than market-pulled, making high-risk investments in research and development to secure patents for new formulations and indications. These firms invest an average of US$500 million and ten years to bring a new drug to market in wealthy nations, relying on patent protection to protect monopoly prices. Only 30 percent of new drugs generate sufficient revenues to cover their development costs (Grabowski, Vernon and DiMasi 2002), so uncertainty about the future of the market leads these firms to try to reap profits as quickly as possible.

Consumer-centric firms, however, make low-risk investments in operations to serve current and potential customers. They innovate through business processes to reduce controllable uncertainty and offer medicines at the lowest possible prices.

**Marketing Focus**

The fundamental difference between the marketing strategies of multinational pharmaceutical firms and the organizations profiled here is that big pharma business strategy is based on building demand for existing products through heavy marketing expenditures in high-volume global markets, whereas these organizations strive to meet potential demand in a dynamic marketplace.

Adaptability is the key to profitability in changing circumstances, and consumer-centric firms strive to be market-driving as well as market-driven. When dealing with a pandemic that affects families, firms, and nations, and when operating in a sensitive international regulatory environment, change is inevitable and hard to predict. Consumer-centric generic drug manufacturers have responded to market volatility by (1) reducing uncertainty in areas under their control, making low prices possible through preorder, prepay manufacturing; (2) keeping in close contact with consumers to better foresee opportunities and threats; and (3) developing contingency plans as a matter of course. As they invest in nimble production capacity to respond quickly to change, these organizations look for synergies at every stage of the value chain. By sensing and responding to changes in the economic and political environment, these firms expand into new territories, allowing new consumers to participate in markets.

**Sphere of Marketing Influence**

The traditional marketing mix toolkit consists of product, price, promotion, and placement (or distribution). When product development timelines are long and business models rely on technological innovation, as traditional drug companies do, marketers have little influence over product offerings. Heavy sunk costs and market uncertainty require premium pricing strategies, so marketing activities in big pharma are primarily promotion-oriented.

Generic manufacturers, however, have the luxury of developing low-cost marketing strategies through product, price, placement, and promotional synergies with operations. Marketing strategies inform decisions in supply chain management, consumer relationship management, customer service delivery, market knowledge management, and innovations management areas.

**Sales Focus**

Seeking to maximize short-term monopoly profits by price skimming during their limited period of patent protection, multinationals drive sales transactions with a large direct sales force. Unable to afford a direct sales force to promote low-cost products, consumer-centric firms develop context-specific partnerships, eliminating conventional classifications of competitors, suppliers, and customers.

**Measurement of Success**

Both consumer-centric and traditional firms depend on economic profits to ensure their survival, but consumer-centric firms seek long-term sustainable profits from increasing the size of the market while traditional firms attempt to win market share from their competitors in high-priced markets. At a marginal cost of pennies per pill, it would have been possible in 2005 to provide ARVs to all patients who needed them, but multinational firms had kept prices high to avoid price erosion as well as parallel importing, or arbitrage, in richer countries. According to Vachani and Smith’s pricing model (2004), based on the number of patients in the developing world who were being treated at a price of US$10,000, dropping the price below US$1,000 would have increased the consumer base by a factor of fifty to eighty. This is precisely what the consumer-centric firms sought to do.

**External Orientation**

The traditional stance can be characterized as defensive, the consumer-centric one as opportunistically
cooperative. Patent holders seek to extend the monopoly period of their intellectual property protection through evergreening, viewing generic manufacturers as “pirates” and “free-riders.” These opportunists, however, are more likely to pursue business relationships with rivals, making them suppliers, customers, and sometimes joint venture partners.

The authors have presented a general classification of consumer-centric marketing strategies, but since each market’s needs, capabilities, and restrictions are unique, firms will differ in their tactics. They now present three ways in which organizations have leveraged the laws and economic situations in their own countries to the greatest good of impoverished patients with HIV.

**Case 1: South Africa**

South Africa was home to more people living with HIV than any other nation in the world. In 2005, 5.3 million South Africans had been infected—22 percent of adults aged 15 to 49 years, plus an additional 200,000 children. In some areas, local unemployment rates were as high as 60 percent. Average life expectancy had dropped by twelve years due to AIDS, reversing half a century of progress (figure 3).

When the HIV epidemic hit South Africa in the 1980s, the nation was suffering under economic sanctions from much of the developed world due to racist apartheid laws in effect until 1994. Political and social turmoil precluded a systematic response to the disease, and compared to its similarly HIV-stricken neighbors, South Africa was a sensationalized public relations nightmare. Global media regularly reported scandals such as how in 1999, the national AIDS program squandered 20 percent of its annual budget on a musical production (Cohen 2000). It was also widely believed that having sex with 100 virgins would cure a man of HIV (O’Reilly 2000). President Thabo Mbeki and Health Minister Mantso Tshabalala Msimang denied that HIV causes AIDS (Asser 2000), claiming the disease had been planted in Africa as part of an Illuminati plan for world domination (Hodge 2000).3 Although these incidents indicate a lack of public support for HIV patients, the more relevant reasons for the epidemic’s quick spread and devastation were widespread poverty, gender inequality, lack of education, high migrant worker population, and political turmoil focusing national resources away from health care. Simultaneously, the high prices of imported ARVs precluded treatment for a majority of the infected population.

For many years, South Africa had been one of the few African nations with both Western-style intellectual property laws and a local pharmaceutical industry (Sidley 2002). The nation made its foray into the global HIV battle in 1997, when the legislature, under then President Nelson Mandela, approved the Medicines and Related Substances Control Act and subsequently faced withdrawal of US foreign aid and a lawsuit by thirty-seven pharmaceutical companies (Deshpandé 2004). Provisions in the act permitted compulsory licensing and parallel importing (purchasing patented drugs from other nations with negotiated price reductions), guaranteeing lower prices for lifesaving drugs. Upon learning of the lawsuit, activists across the globe demonstrated publicly against the drug companies that “would rather cure a bald American than a dying African” (McNeil 2000). The plaintiffs eventually dropped the court case, promising price reductions of up to 90 percent. These reductions, however, failed to materialize.

In 2004, the government found itself embroiled in American party politics: both the Clinton Foundation, a non-governmental organization started by former President Bill Clinton, and then US President George W. Bush’s PEPFAR were vying to negotiate pricing and procurement terms for the country’s new AIDS relief program. The Clinton plan was more favorable, guaranteeing access to low-priced generics, but the PEPFAR...
initiative had more funding, though it was earmarked for patented HIV drugs. Adopting either plan could have had negative political repercussions, but local drug manufacturer Aspen Pharmacare was able to help South Africa realize the benefits of both the Clinton and the PEPFAR plans through a determined focus on patient care and cooperative business relationships.

Aspen Pharmacare

If you want to make peace with your enemy, work with your enemy. Then he becomes your partner.

–Nelson Mandela, former President of South Africa

Founded in 1997 in a suburban home in the Kwa-Zulu Natal province, where the HIV prevalence rate reached 33 percent, the highest in the nation (Leggett 2004), Aspen Pharmacare had quickly grown to become Africa’s leading generic pharmaceutical manufacturer (The Economist 2005). 2005 was a record year for the firm, with net profits up 39 percent since the year before (Aspen Pharmacare, 2005). It was no wonder Aspen Pharmacare was a rising star on the Johannesburg Stock Exchange, combining solid financial performance with an unmatched core competence in business diplomacy. Rather than focusing on high-margin drugs, the firm was committed to treating its nation’s biggest problem: HIV. Since patents protected all the major drugs for treating HIV and poor South Africans could not afford their high cost, Aspen Pharmacare worked to negotiate unusual nonexclusive licensing agreements to expand treatment to the poor, earn healthy returns and prevent price erosion in Western markets.

Aspen Pharmacare was the first African firm to enter the ARV market, and the first firm in the world granted voluntary licenses for the development and manufacture of patented ARVs. Working with the national government on an ARV rollout program, Aspen Pharmacare launched a licensed version of American Bristol-Myers Squibb’s patented stavudine in 2003, followed by German Boehringer Ingelheim’s nevirapine, for preventing mother-to-child transmission, and British GlaxoSmithKline’s lamivudine/zidovudine cocktail in 2004. The terms of these agreements reflected public relations benefits to the licensing firms: GlaxoSmithKline waived its licensing royalty in exchange for a donation of 30 percent of sales to local HIV programs (Vachani and Smith 2004), and Boehringer Ingelheim required no royalties or donations. Additionally, the Boehringer Ingelheim agreement—the multinational firm’s first nonexclusive voluntary license—would allow Aspen Pharmacare to export nevirapine to thirteen other African countries.

When in 2004, the Clinton/Bush dilemma hung in the balance, Aspen Pharmacare was successful in negotiating deals with all the major stakeholders. Because the firm was manufacturing patented drugs, it was eligible for PEPFAR funding, and after becoming the first generic firm approved by the Food and Drug Administration’s (FDA’s) new fast-track process, it became the first generic firm approved by PEPFAR. Additionally, Aspen Pharmacare’s manufacturing costs were low enough to supply drugs at the Clinton Foundation’s floor price, and the firm became the Clinton Foundation’s first approved supplier as well. Aspen Pharmacare also negotiated a fourth ARV marketing agreement, this one with American biopharmaceutical firm Gilead Sciences, for the rights to sell Gilead’s ARVs in ninety-five countries around the world. The South African government awarded Aspen Pharmacare the lion’s share of its public ARV tender for drugs to treat more than one million patients. The governments of Nigeria and Uganda soon followed suit, placing orders with Aspen Pharmacare for their own national AIDS programs.

The firm continued exploring new opportunities to reduce costs and serve new patients. In September 2005, Aspen Pharmacare signed a joint venture with Indian generic pharmaceutical manufacturer Matrix, to strengthen vertical integration into active pharmaceutical ingredients (APIs), the costliest component of its drugs. This investment in further manufacturing capacity would allow the Aspen-Matrix JV to supply APIs to other manufacturers, ensuring a low-cost supply of drugs to consumers in Africa.

The case of Aspen Pharmacare illustrates a skillful balancing of key stakeholders’ interests, meeting patient needs while satisfying the requirements of funding organizations, the South African government, and the patent-holding pharmaceutical companies. By partnering with potential rivals, the firm grew the market for ARVs in South Africa—and elsewhere in Africa—as it saved lives while enhancing its own bottom line.

Case 2: India

With 5.1 million people afflicted, India had the second highest number of HIV cases in the world in 2005. Health and wealth disparity went hand-in-hand, with the poorest quintile of Indians suffering double the mortality rate of the wealthiest quintile (Misra, Chatterjee and Rao 2003). World Bank estimates predicted that during the next ten years, as many as thirty-five million Indians...
could become infected—nearly doubling the number of HIV patients in the entire world. The epidemic was still nascent, however, with a national prevalence rate of only 0.8 percent, so expedient action might contain it.

Changes in India’s patent laws during the twentieth- and early twenty-first centuries had stimulated major shifts in the country’s pharmaceutical sector, and more big changes lay ahead. From the early 1900s until 1970, India had obeyed British-style patent laws, but in 1970, Indian drug manufacturers successfully lobbied parliament to pass a Patent Ordinance prohibiting product patents in the key areas of food and medicine. Indian generic drug companies were soon outselling the multinational pharmaceutical firms that had dominated the Indian market for decades and access to drugs expanded as prices dropped dramatically (Huang and Hogan 2002). Patients in other countries benefited too, as Indian firms sold their generic drugs and bulk ingredients where laws permitted. By 2005, 50 percent of all generic ARVs distributed in developing countries had been imported from India (Hamied 2005b).

In 2005, Indian generic firms were at a crossroads: India was required to comply with restrictive WTO intellectual property laws in January of that year, and because parliament had made the patent law retroactive, all patents submitted since 1995 would be considered. Since less than 1 percent of drugs produced in India were under patent in 2005, there would be little effect on current offerings; however, patents submitted in 1995 would cover drugs only just reaching the market, so the future impact would be much greater. Poor patients all over the globe might be unable to afford new treatments if Indian firms could not produce them.

CIPLA

Be the change you wish to see in the world.

—Mohandas (Mahatma) Gandhi, former leader of the Indian National Congress

One of the firms on which India’s pharmaceutical future rested was the country’s top drug company, Cipla. Cipla was a global success by any measure. During the previous decade, Cipla’s revenues had risen 25 percent annually, and in 2004, sales growth outpaced the national pharmaceutical industry by 400 percent. The firm maintained a healthy 22 percent net profit, outperforming multinational companies that were charging up to twenty times more for identical drugs. During the past three decades, India’s patent laws had given Cipla a unique advantage over generics manufacturers in other countries, enabling the firm to provide low-cost medicines to the poor.

For seventy years, Cipla had pursued novel strategies for improving the health of the poor while enriching its shareholders (Deshpande 2004). During World War II, when drugs were in short supply, Cipla began manufacturing APIs for British pharmaceutical companies, and after the war, continued producing these raw materials as well as a variety of generic drugs. Ownership over the supply chain, from chemical ingredient to finished product, provided the necessary condition for India to reconsider its patent laws after independence. Whereas Cipla had been the fifty-sixth largest pharmaceutical firm in India in 1970, it gradually surpassed all the foreign multinationals and secured the top spot in 2005. As the company grew, Cipla focused its business on life-saving drugs and chronic medicines. Under India’s revised patent laws, Cipla could reverse-engineer any patented drug and sell it at an affordable price in all countries where local laws permitted.

By the late 1990s, ARV cocktails requiring patients to take three separate drugs had proven effective for treating HIV symptoms, but because patent ownership was divided, no firm was manufacturing a combination of these drugs. And because of the added difficulty of obtaining the multiple drugs and timing their use properly, patient compliance was low. Misuse or sporadic use of ARVs was of great concern because it resulted in the spread of drug-resistant strains of HIV. Cipla scientists reverse-engineered the most promising and cost-effective ARV drugs on the market to sell them at affordable prices (Deshpande 2004). The firm approached patent holders for licensing agreements, as Aspen Pharmacare had but was refused and so pursued its own drug development. The process led to the creation of Triomune, a patient-friendly, triple-therapy cocktail in one tablet that could be sold for less than US$200 per patient per year. As of 2005, Cipla’s ARV business had grown to cover 150 countries and 25 percent of the total ARV market (Hamied 2005b). Through the Clinton Foundation, Cipla (along with Aspen Pharmacare) sold triple cocktail therapy for as low as US$140 per patient per year in some countries (Biswas 2003.)

How was Cipla able to sell Triomune for such a low price, when other firms were charging seventy times more for the same three drugs? The crux of the firm’s low-cost strategy was synergy between marketing and operations. Serving the poor can require sale prices lower than competitors’ total cost, so consumer-centric marketing calls for reconceptualizing the business model.

Cipla recouped its greatest cost savings in marketing. While multinational corporations were spending 33
percent of sales on marketing and administration, Cipla spent only 9 percent on these tasks (see figure 2). There were three main factors responsible for Cipla’s cost savings in marketing. First, like all generics companies, Cipla benefited from marketing investments made by the firms that had originally brought these drugs to market and built demand within the global medical community. For this reason, some patent holders called their generic rivals “pirates,” although they were operating in accordance with national laws. Second, Cipla’s message was simple to communicate: low-priced drugs treating life-threatening conditions. Third, the firm leveraged social and media networks through activist groups and nonprofit organizations. For example, when the company was ready to offer its first ARVs at the sensationally low price of US$350 per patient per year, Cipla made the offer directly to global aid organization Medicins Sans Frontieres (Doctors without Borders; Deshpandé 2004).

Since it was the aid organization’s interest to drive prices down around the world, its officers helped publicize the offer and were instrumental in securing New York Times headlines—publicity no marketing budget could secure.

In addition to cost savings due to reduced marketing expenditures, Cipla streamlined its operations to reduce cost at every critical juncture. One of these was the firm’s pricing structure. Rather than segmenting the global market by country as its more traditional competitors do, Cipla chose to offer a tiered pricing system to allow purchasers to segment themselves. The requirements for its lowest price tier were simple: bulk preorders, prepayment, shipping and customs responsibility, protection against price inflation of raw materials, and indemnity from patent suits. These simple requirements dealt with two additional critical junctures: inventory cost and cash flow. As it received preorders, the firm purchased raw materials and produced its product efficiently, minimizing inventory and waste. As it received prepayments, the firm could pay its own suppliers in cash rather than credit, eliminating finance charges; invest the positive cash flow in company growth; and prevent bad debt. With advance planning, manufacturing capacity could be optimized and manufacturing costs minimized. Because buyers took responsibility for their own shipping and customs, Cipla further reduced its own uncertainty and risk.

Cost minimization is a virtuous cycle in the consumer-centric marketing paradigm. Low costs enable firms to charge low prices, empowering more consumers to participate in the market, increasing sales, leading to increased economies of scale, and lowering costs. The cycle could not continue indefinitely, of course, and India’s 2005 patent laws challenged Cipla’s nimbleness in all the areas the authors have mentioned. Under the new laws, any drug granted a new patent (current or retroactive) would be off-limits for generic manufacturers until 2015 at the earliest. These laws dealt a huge blow to Cipla, the national pharmaceutical industry, and the poor patients who depended on India’s low-cost generic drugs for their survival. As Cipla Chairman Yusuf Hamied put it,

It will divide the human race into those who can afford lifesaving drugs and those who cannot. It will lead to a systematic denial of drugs to 3 billion people in the poorer nations, an act tantamount to selective genocide by the year 2015. (Hamied 2005a)

It was unlikely most people in India would have access to new drugs in the future without government intervention: issuing a compulsory license, mandating price caps, or modifying the patent law. (The chance of patent holders voluntarily licensing their products as they did in South Africa was small, given their profit potential in the lucrative Indian market, and evidenced by the fact that they declined to do so when patent laws did not favor their position.) Cipla, though lobbying for such government intervention, did not wait for a government decision. Keeping nimble, the firm began to devise new lawful ways to get around patent restrictions to continue serving the poor in other nations. In October 2005, the Ugandan Health Minister announced that Cipla and the Ugandan firm Quality Chemicals Ltd had signed a deal to partner with the Ugandan government in building Uganda’s first ARV manufacturing facility. Since Uganda was one of the WTO’s designated LDCs, it would not be required to adhere to international patent standards until 2016. The Ugandan ARV plant would manufacture new patented ARV drugs as they came to market, distributing them to Uganda’s AIDS patients and exporting them to Kenya, Tanzania, Rwanda, and other LDC nations. With Cipla’s assistance, Uganda followed some best practices of the most successful state-run AIDS program in the world: Brazil’s (Xinhuanet 2005).

Cipla is an exemplar of consumer-centric marketing in the ARV industry. The firm’s leaders were instrumental in changing Indian patent law to protect patients in the 1970s and continued evolving creative strategies to serve patients too poor to pay the high prices of patented drugs. The firm leveraged NGOs in its communications strategy, innovated in the areas of finances and market segmentation, and increased the global market for ARVs.
Case 3: Brazil

Brazil’s case is interesting and important because although its AIDS program had been phenomenally successful, similarly to India, it faced grave challenges ahead in 2005. Unlike India, Brazil had continued supporting its national pharmaceutical industry and its HIV patients even when WTO patent laws went into effect.

Brazil was the first national government to fund ARV production, declaring its commitment to patient rights above patent rights (Flanagan and Whiteman 2007). When Brazil launched its National AIDS Program in 1992, the nation’s HIV prevalence rate was equal to South Africa’s, with a typical patient surviving only six months postdiagnosis. By 2005, Brazil’s National AIDS Program had become the global gold standard for fighting AIDS and had contained the epidemic to a prevalence rate of only 0.7 percent when in South Africa, the prevalence of the unchecked disease was thirty times higher. The National AIDS Program had succeeded largely because it was a product of Brazil’s unique political, social, epidemiological, and economic circumstances. Although thirty-one countries had adopted Brazil’s treatment and prevention guidelines by 2005, only Guyana replicated the whole system.

Following an army revolt, from 1965 to 1984 a succession of military regimes ruled Brazil, suppressing individual rights, suspending constitutional protections, and imposing press censorship. In 1985, Brazilians democratically elected a civilian president, and in 1988, they ratified a new constitution declaring health a universal human right. Many government leaders who took office were former activists and union organizers favoring liberal social policy.

Journalists and other individuals embraced their new right to free speech, candidly discussing sexuality in general, and homosexuality in particular, and this openness contributed to the success of Brazil’s HIV prevention social marketing program. One path of prevention was through schools, where students received HIV education and free condoms starting in their early teens. When the school program was initiated, only 5 percent of young people had used condoms during their first intercourse; by 2003 that number had increased to 55 percent (Olveira-Cruz, Kowalski and McPake 2004).

The initial spread of HIV in Brazil, as in many other nations, was among high-risk groups (gay men, sex workers, and intravenous drug users) in metropolitan areas. The concentration of the epidemic was a favorable epidemiological condition increasing the likelihood of containment, and the fact that it had spread among middle- and upper class, well-educated communities meant patients had considerable political clout.

Oddly, Brazil’s economic instability was another key to the success of its National AIDS Program. From the mid-1980s to the mid-1990s, the new government was spending much faster than it was collecting taxes, stimulating hyperinflation of up to 2,000 percent. Government leaders realized currency devaluation would put imported drugs out of reach, but because health care was a guaranteed right, Brazil’s leaders made the landmark decision to ensure access to ARVs by investing in local production capability (Biehl 2004).

The National AIDS Program

Our position as government was not aimed at proposing the abolition of intellectual property protection, but rather to suggest and defend a position stating that patent rules must make it possible to achieve a balance between the objectives of the private and public interests.

–José Serra, Brazil’s former Minister of Health

As the government of Brazil took steps toward solving the AIDS crisis, commitment to patients was complete and unambiguous. In 1996, President Fernando Henrique Cardoso signed a law-making ARV treatment free for everyone who needed it, for their entire lives. The commitment to a problem rather than to a solution spurred the National AIDS Program (and over it the Ministry of Health and the Brazilian government) to develop creative and efficient solutions. One roadblock avoided by commitment to efficacy was moral rhetoric. The National AIDS Program’s prevention practices all centered on understanding the problem without blaming the patient. This consumer-centric approach helped recruit supporters from all the high-risk groups, even winning the support of the Catholic Church in Brazil. Prostitutes’ unions were highly active in shaping HIV education, meeting regularly with the National AIDS Program to help determine policy. The no-blame, human rights-based perspective was so actively embraced that in the summer of 2005, the National AIDS Program turned down US$40 million of USAID funding because the grant would have required recipients to sign a pledge condemning prostitution, which is legal in Brazil (Phillips and Moffett 2005).

By any measure, the National AIDS Program’s success had been dramatic. By 2001, it had averted half the 1.2 million predicted infections, decreased hospitalization and mortality rates by 50 percent, and reduced mother-to-child transmission by two-thirds (Biehl 2004).
The number of new infections had declined each year, and 100 percent of reported HIV patients were under treatment. Ninety-seven percent of the population knew how AIDS was transmitted, and free condoms and needles were widely available. It had been clear since the National AIDS Program began that the number of AIDS patients would increase while the national health budget remained constant and the currency fluctuated, so the Ministry of Health committed to local production of ARVs. In 1992, state-run pharmaceutical facility Far-Manguinhos started local production of AIDS drugs not covered by Brazilian patent law at that time, and these drugs were being distributed to patients by the next year at a small fraction of the price of the patented versions.

By 2005, Far-Manguinhos manufactured more than 20 percent of the ARVs distributed in Brazil, at an average cost savings of 60 percent (company Web site). The greatest economic advantage of local production, however, had been in leveraging price negotiations with pharmaceutical patent holders. Since the late 1990s, Far-Manguinhos had been reverse-engineering all the HIV medications on the market so that at any time, Brazil could declare a national emergency and begin full-scale production of these drugs. Price negotiations had repeatedly made global news as Brazil bargained down patented drug prices by 40 percent to 60 percent, a total reduction of 87 percent when combined with Far-Manguinhos-produced medicines (Deshpandé and Reisen de Pinho 2006) (see figure 4). Although Brazil had not yet needed to follow through with compulsory licensing, it lent credibility to its threat by offering guided tours of its drug manufacturing facilities to executives of patent-holding multinational firms (Flanagan and Whiteman 2007).

As seen in figure 5, price negotiations and economies of scale in local production allowed the National AIDS Program to offer ARV therapy to an increasing number of patients each year, saving thousands of lives. The miracle of this successful social program was that it was a profitable business model as well, creating social and economic value. The benefits outweighed the costs in every way. Total spending on the National AIDS Program between 1999 and 2004 was US$2 billion, and savings in reduced hospitalizations and discounted drug prices was US$3.8 billion—a nearly 100 percent return on investment. Shrewd business management was at the root of the National AIDS Program’s processes and practices, such as maintaining a central database to ensure proper treatment and control inventory, implementing mobile treatment units to reduce hospitalizations and working with activist groups to spread social marketing messages. Through its Positive Future project, Far-Manguinhos cooperated with other nations to set up local generic ARV production. In 2005, Brazil entered into an agreement to build the first generic pharmaceutical factory in Mozambique (Valy 2008), and other countries were considering local production as well.
The case of Brazil’s National AIDS Program demonstrates that public organizations can use the same consumer-centric techniques as private firms, resulting in savings that allow broad patient coverage. As the country’s leaders committed to providing HIV treatment free of charge, National AIDS Program leaders were forced to be resourceful as they worked within a limited budget. Threatening to produce patented drugs under a compulsory licensing program permitted by the WTO’s Doha Declaration enabled health officials to negotiate low prices from patent holders, increasing the drug treatment base to all Brazilian patients who needed medication. By 2005, these were nearly half the total number of patients in the developing world receiving ARV treatment (Reid 2004).

**Conclusion**

The authors have presented a consumer-centric social marketing model with three cases to illustrate applications, showing that “doing well by doing good” is possible even for devastating social ills like the HIV epidemic. As several macromarketing scholars have noted, it is by examining the entire “marketing system” that they get a broader and better perspective on how such a major problem might be addressed (e.g., Fisk 1981; Shultz 2005; Layton 2007; Varman and Costa 2008). ARV drug distribution is only one component of a comprehensive HIV treatment and prevention program, and even if drugs were offered at zero cost to all nations, bottlenecks in distribution and lack of infrastructure would impede treatment (Calfee and Bate 2004). From a firm perspective, by combining some of the best practices illustrated by Aspen Pharmacare, Cipla, and the Brazilian National AIDS Program, generic drug manufacturers will be able to continue to survive and to thrive while saving lives, despite the vagaries of restrictive patent environments. Although it would require major changes to their current business model, patent holders could employ some of these consumer-centric practices as well. Michael Kremer (2002) and others have argued for various public/private compromises like tax credits for drug donations and “pull” R&D programs that would reduce financial risk by guaranteeing future sales, but these ideas have not yet been implemented. Furthermore, successful containment of the HIV epidemic will require commitment and creative participation at all levels of the marketing system, not just the firm. National governments must exercise their rights to compulsory licenses and parallel importing, activists must continue focusing media attention on social injustices in the HIV business, and patients must keep lobbying for support from their own governments. All these upstream groups (Andreasen 2006) must focus on the needs of the patients first, and profits will follow. The customer-centric model illustrated here may also be applied to other diseases prevalent in poor nations, and future research could further its application in non-health domains as well.

**Notes**

1. HIV is the virus that causes AIDS, with AIDS being the final stage of the disease. The distinction between the two is based on a threshold number of T-cells present and the presence of one or more opportunistic infections. In this article, the authors will generally use the broader term “HIV,” which encompasses all AIDS infections.

2. This goal was achieved at the end of 2007. At the time of this writing, “All by 2010” was the current target.

3. Mbeki was forced to resign in September, 2008, after a progressive loss of political support due in part to his mishandling of the HIV crisis.

**References**


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